

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A holographic recording medium, comprising:
_____ a first substrate;
_____ a hybrid material layer which is formed on the first substrate, the hybrid material layer including an inorganic glass and a photopolymer as main ingredients;
_____ a photopolymer layer which is formed on the hybrid material layer and is subjected to heat or ultraviolet curing; and
_____ a second substrate which is disposed on the photopolymer layer in contact with the photopolymer layer, wherein
_____ the second substrate ~~being is~~ bonded and fixed to the photopolymer layer; ~~and a remaining dynamic range, a refractive index, photosensitivity, an absorption coefficient, and a shrinkage factor per unit exposure of the hybrid material layer and those of the photopolymer layer are made approximately the same.~~
_____ the first substrate and the second substrate are each composed of a material that is optically flat and transparent to the wavelength of a laser beam for use in holographic recording and reproduction; and
_____ a thickness of the photopolymer layer in a thickest portion is 5 μ m to 8 μ m.
2. (Original) The holographic recording medium according to claim 1, wherein
a thickness of the photopolymer layer is adjusted such that a combined thickness of the photopolymer layer and the hybrid material layer is uniform.
- 3-5. (Canceled)
6. (Currently Amended) A method for manufacturing a holographic recording medium, comprising:

a step of applying a liquid hybrid material formed by filling an inorganic glass network to a first substrate with a ~~photopolymer~~; photopolymer, the first substrate being composed of a material that is optically flat and transparent to the wavelength of a laser beam for use in holographic recording and reproduction;

a step of gelating and drying the applied hybrid material to form a hybrid material layer;

a step of applying a liquid photopolymer which is cured by heat or light to the surface of the hybrid material layer;

a step of placing a second substrate on the photopolymer in parallel to the first substrate before the applied photopolymer is cured to thereby sandwich the hybrid material layer and the photopolymer between the first substrate and the second ~~substrate~~; and substrate, the second substrate being composed of a material that is optically flat and transparent to the wavelength of a laser beam for use in holographic recording and reproduction; and

a step of allowing the photopolymer to cure by heat or light in the sandwiched state to thereby form a photopolymer layer, the photopolymer layer having a photosensitive band in a long wavelength side of a photosensitive band of the hybrid material; and

incomplete curing is performed in the step of allowing the photopolymer to cure such that photosensitivity thereof is retained, the incomplete curing and the retained photosensitivity allowing the hybrid material layer and the photopolymer layer to have a remaining dynamic range, a refractive index, photosensitivity, an absorption coefficient, and a shrinkage factor per unit exposure made approximately the same.

7-10. (Canceled)

11. (Currently Amended) A method for manufacturing a holographic recording medium, comprising:

a step of applying a liquid hybrid material formed by filling an inorganic glass network to a first substrate with a ~~photopolymer~~ photopolymer, the first substrate being composed of a material that is optically flat and transparent to the wavelength of a laser beam for use in holographic recording and reproduction;

a step of gelating and drying the applied hybrid material to form a hybrid material layer;

a step of applying a liquid photopolymer which is cured by heat or light to the surface of the hybrid material layer;

a step of placing a second substrate on the photopolymer in parallel to the first substrate before the applied photopolymer is cured to thereby sandwich the hybrid material layer and the photopolymer between the first substrate and the second ~~substrate;~~substrate, the second substrate being composed of a material that is optically flat and transparent to the wavelength of a laser beam for use in holographic recording and reproduction;

a step of allowing the photopolymer to cure by heat or light in the sandwiched state to thereby form a photopolymer layer, the photopolymer has a thermosetting property; and

incomplete curing is performed in the step of allowing the photopolymer layer to cure such that photosensitivity thereof is retained, the incomplete curing and the retained photosensitivity allowing the hybrid material layer and the photopolymer layer to have a remaining dynamic range, a refractive index, photosensitivity, an absorption coefficient, and a shrinkage factor per unit exposure made approximately the same.